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THE USE OF AIR POWER AS A COERCIVE INSTRUMENT: CONSIDERATIONS FOR  
THE OPERATIONAL COMMANDER

by

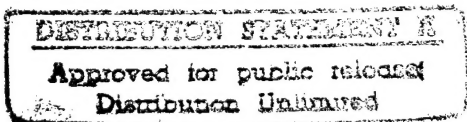
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The contents of this paper reflect my own personal views and are not necessarily  
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## Abstract of

### THE USE OF AIR POWER AS A COERCIVE INSTRUMENT: CONSIDERATIONS FOR THE OPERATIONAL COMMANDER

While, in the aftermath of the Persian Gulf War, debate rages as to the effectiveness of air power in a wartime environment, the U.S. continues to be extensively involved in military operations short of war. Air power constitutes a significant component of these operations and, in certain cases, has been the instrument of choice when attempting to coerce or retaliate against other nations or groups. Air power is an attractive instrument of coercion because it's cheap in terms of casualty risk and doesn't signal the same level of commitment as the introduction of ground troops.

While air power might be an attractive coercive instrument, it's not a panacea; and the operational commander should be aware of its limitations. These limitations include target-poor environments, a characteristic of third-world countries; the existence of political constraints; ancillary effects beyond those intended; enemy countermeasures, both passive and active; the mixed signals of limited commitments; problems associated with measurement of effectiveness; and loss intolerance.

Balanced against these limitations, certain guidelines appear to exist which, if observed during planning and employment, should help to maximize air power's impact. First and foremost, the political objective should be kept in the forefront of the planning efforts. Coercive air operations should also attempt to balance effectiveness and efficiency, choose the appropriate level of force projection, and ensure operational as well as strategic utility.

## INTRODUCTION

The impressive exploits of air power during the Gulf War have raised anew the debate as to the effectiveness of air power during wartime. The many claims and counterclaims put forth are certainly interesting and probably necessary in order to prepare for the next war, but the fact remains that during the last 23 years we've fought only one conventional military conflict while almost continuously engaged in the full spectrum of military operations short of all-out war. The nation's espoused national security strategy of engagement and enlargement, along with recent events in Haiti and Bosnia-Herzegovina, indicate that this trend will continue, with our forces heavily engaged in military operations overseas.

Air Force Manual 1-1 lists 34 examples of military activities which are conducted in an environment short of war.<sup>1</sup> As the manual notes, these activities "serve political ends", through either direct or indirect application of power. Likewise, Army Field Manual 100-5 describes 13 different operations which might occur under the mantle of MOOTW.<sup>2</sup> These activities range from noncombatant evacuation operations to attacks and raids, again providing a range of operations during which either direct or indirect application of military power may be used. Direct application of military power falls at the more bellicose end of this operational spectrum and has at times been used for coercive purposes, in order to punish or to modify the behavior of another state or political group.

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<sup>1</sup>U. S. Air Force, AFM 1-1, Volume II, Basic Aerospace Doctrine of the United States Air Force (Washington: Department of the Air Force, 1992), 56.

<sup>2</sup>U. S. Army, FM 100-5, Operations (Washington: Department of the Army, 1993), 13-3.

Air power possesses several characteristics which have made and will continue to make it attractive as a coercive instrument of power; however, it is not a panacea. Several limitations exist which can hamper air power's effectiveness, especially in a MOOTW environment. Operational commanders must be aware of these limitations and take steps to minimize them during operational design.

#### **DIRECT APPLICATION OF FORCE: AIR POWER AS A COERCIVE TOOL**

Political leaders have available a wide range of instruments or tools through which they attempt to modify or sustain the behavior of other nations or groups. Some of these tools are "carrots", such as the granting of Most-Favored-Nation status; others are "sticks", such as the imposition of economic sanctions. In certain situations, the tool of choice becomes a military instrument, creating a situation for which air power is uniquely suited. As Eliot Cohen points out, air power "will remain America's weapon of choice...because it is high tech, cheap in terms of our blood, and seemingly noncommittal."<sup>3</sup>

These characteristics of air power are particularly important given the American preference for decisive force with limited commitment, a preference amply illustrated by the rigorous conditions required by the Weinberger Doctrine prior to the introduction of ground troops. In other words, a punitive air strike as a coercive measure can be expected to be more politically palatable than the introduction of ground troops--a fact which operational commanders must keep in mind when formulating recommendations for crisis response.

Another aspect of air power which makes it attractive as a coercive instrument is the development and refinement of precision-guided munitions. Cohen notes, "precision

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<sup>3</sup>Eliot Cohen., "Air power, the Next War, and the Marine Corps", Marine Corps Gazette, November 1995, 40.

weapons mean that pilots can, for the first time, be fairly certain of hitting what they aim at, and information technologies mean that they will have a much better idea of what they are supposed to hit.”<sup>4</sup> The ramifications of these advancements are significant. Punitive or coercive air operations now have the opportunity for truly surgical strikes which minimize casualties, an important requirement in the arena of world opinion.

Ultimately, air power is inherently flexible and responsive, providing a wide range of options, from overflights to airspace denial to airstrikes. Opposed to the advantages of air power, however, are several limitations which complicate the effective use of air power in a MOOTW environment.

#### **LIMITATIONS ON AIR POWER USE**

**1. Target-poor environments.** While air power can be extremely effective against a conventional industrialized enemy, it can be severely limited when opposed against “organisms which are not industrialized or industrializing state systems.”<sup>5</sup> The U.S. encountered this limitation during both the Korean and Vietnamese conflicts and would face the same problems today if directed against an agrarian or pre-industrialized society. These societies lack the infrastructure which provides points of leverage for possible targeting.

The nature of the conflict may also greatly complicate targeting efforts. For example, when dealing with communal violence, “ethnic groups can be distributed so haphazardly that it becomes difficult to discern a discrete territorial unit inhabited by specific nationalities or

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<sup>4</sup>Ibid.

<sup>5</sup>Richard Szafranski, “Parallel War: Promise & Problems”, U.S. Naval Institute Proceedings, August 1995, 58.

ethnic groups.”<sup>6</sup> In other words, specific targets which impact only the targeted group may be difficult or impossible to find.

**2. Political constraints.** The use of air power as a coercive (i.e. political) instrument blurs the distinction between the strategic and operational levels, since each operational objective in and of itself may produce a strategic effect. This is particularly true with respect to airstrikes meant to alter the behavior of another state or population group. In most instances, the target sets are intended to influence leadership without undue impact on the surrounding population. Ominously, this intention is often continuously assessed through the instantaneous medium of television; therefore, operational success or failure with respect to this intention is very quickly broadcast around the world.

As mentioned earlier, the refinement of precision-guided munitions has increased our surgical-strike capability. An excellent example is the use of cruise missiles to destroy the Iraqi Intelligence Service’s Command and Control complex in the wake of Iraqi assassination efforts against former President Bush. This reliance on precision can very quickly backfire, however, as “inevitably, even the best-aimed laser-guided bomb will lose its fix on a target because of a passing cloud or a steering mechanism failure, and hurtle into an orphanage or hospital.”<sup>7</sup> While the preceding quote is slightly dramatic for effect, the fact remains that unintended civilian casualties can very quickly turn operational success into strategic failure.

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<sup>6</sup>William Stofft & Gary Guertner, “Ethnic Conflict: The Perils of Military Intervention”, Parameters, Spring 1995, 33.

<sup>7</sup>Eliot Cohen, “The Mystique of US Air Power”, Strategic Review, January-February 1994, 121.

Concerns over such mishaps, as well as other political factors, can lead to unacceptable operational constraints which severely impact the effectiveness of air power and/or place the operation at much greater risk. Furthermore, these constraints operate even during a wartime environment, as evidenced by the suspension of bombing in Baghdad after the al-Firdos bunker was bombed--with civilians inside. If such a decision could be made during wartime, it would be even more likely during an operation short of actual war.

**3. Ancillary effects.** As a corollary to the political constraints, operational planners also have to consider ancillary effects on the targeted population. Again, punitive or coercive airstrikes are generally meant to directly influence leadership while minimizing casualties to the surrounding population. This requirement can limit the choice of available targets simply because of the possible widespread effects associated with certain targets' destruction. Electrical power is one such target set which might appear attractive because of the "leverage" which limited strikes might exert. However, the indirect effects of such an attack on the civilian population might be politically unpalatable. "In Iraq, the impact on civilians from the loss of power were quite severe, including the loss of power to hospitals, the breakdown of water purification systems, and damage to sewage systems, which then contaminated the water supply...In today's global political environment, with its instantaneous communications ability, harming civilians carries a considerable cost."<sup>8</sup>

Ironically, the destruction of electrical power might have a negligible impact on the targeted leadership, since military operations would enjoy priority for any residual power, as

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<sup>8</sup>Thomas Griffith Jr., "Strategic Air Attacks on Electrical Power: Balancing Political Consequences and Military Action", Strategic Review, Fall 1995, 43.



well as being augmented with alternative sources of electrical power.<sup>9</sup> The airstrikes might thus achieve negative political consequences without impacting the intended leadership.

**4. Enemy countermeasures.** The flexibility of air power ends when the bomb or missile leaves the rack. Astute opponents will recognize this fact and use both passive and active measures to counter air power's potential effectiveness. As a passive measure, countries can adopt dual-use systems which possess both military and peaceful utilities. A striking example is the use of fermenters, necessary for the production of both beer and biological weapons.<sup>10</sup> In addition, military facilities can be embedded in civilian institutions.<sup>11</sup> An air defense coordination center located in the basement of a hospital would present major political difficulties yet might be an essential target for operational success.

Active measures can also deny air power freedom of action and force operational changes. Furthermore, these measures are available even to developing countries. For example, the Soviets relied heavily on air power in Afghanistan and were severely constrained with the introduction of Stinger missiles into the theater.<sup>12</sup> The U.N. air superiority mission over Bosnia was also complicated by the loss of a U.S. F-16 to an SA-6 which had been modified to include an ambush feature. This ambush feature allows the SA-6 to provide warning times similar to a man-portable weapon but with the added advantage of

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<sup>9</sup>Ibid., 42.

<sup>10</sup>Szafranski, 58.

<sup>11</sup>Ibid., 60.

<sup>12</sup>Stephen Blank and others, Responding to Low-Intensity Conflict Challenges (Maxwell AFB, AL: Air University Press), 100.

all-weather capability.<sup>13</sup> These types of modifications are doubly difficult to counteract--at least initially--because adequate intelligence may not be available.

Possibly one of the most significant measures which a country may adopt in the future is the acquisition of weapons of mass destruction (WMD) on mobile systems. According to Colonel Richard Szafranski, holder of the National Military Strategy chair at the Air War College, "weapons of mass destruction so raise the risks and consequences of an attack that mere possession of these weapons and mobile delivery systems may impose prewar paralysis on the attacker."<sup>14</sup> Possession of such weapons certainly complicates the targeting process, as highlighted by our difficulties with finding and destroying mobile Scud launchers during the Gulf War.<sup>15</sup> Any planned operation would, assuming the launchers could be located, have to address the WMD threat initially.

**5. Limited commitment as a double-edged sword.** One of the most attractive aspects of air power projection--its limited commitment--can also be one of the most limiting in terms of operational effectiveness. The use of air power, rather than introduction of ground forces, can actually undermine any potential coercive signal, since the perception could be that the U.S. is unwilling to commit to a significant escalation.

The taking of hostages by the Bosnian Serbs dramatically displays the limitations that can be placed on air power when a belligerent believes that an opponent has reached the limit of its willingness to escalate. In addition, the usefulness of force as a tool of coercion

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<sup>13</sup>Norman Friedman, "Mobile Missile Defeats F-16", U.S. Naval Institute Proceedings, August 1995, 91.

<sup>14</sup>Szafranski, 60.

<sup>15</sup>Richard Hallion, Storm Over Iraq: Air Power and the Gulf War (Washington: Smithsonian Institution Press), 245.

diminishes when confronted by an opponent ruled by subjective rationality. Such an opponent would possess "goals...defined more in terms of psychic fulfillment and personal meaning than as tangible things or conditions" and would have "...a tolerance for risk and passion for danger difficult for a potential deterrer to understand, much less manipulate." Accordingly, this opponent might "actually seek threats from status quo powers like the United States in order to intensify commitment within [the] organization."<sup>16</sup> With this in mind, an operational commander should understand clearly the extent to which political leaders are willing to risk further commitment before recommending a certain course of action (although this is easier said than done.)

**6. Problems with measurement of effectiveness.** It is within this problem that we truly face a blurring of distinction between the strategic and operational levels, since the nature of coercive air power requires a measurement of true effectiveness at the strategic level.

Measurement thus becomes doubly difficult given the nebulous nature of political objectives.

As Griffith notes:

[U]nless we destroy everything--something that is not politically possible today--states can still innovate without changing their political behavior. Precise intelligence data of what we have hit only tells us where repeat attacks might be needed; it tells us little about the true effectiveness of an air pressure attack...The impact..on a nation or its leaders--in other words, the true effectiveness of this strategy--remains exceedingly difficult to gauge.<sup>17</sup>

In 1986, for example, Operation El Dorado Canyon was conducted against targets in Libya in order to "degrade Colonel Muammar Qadhafi's capability and will to support

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<sup>16</sup>Steven Metz, "Deterring Conflict Short of War", Strategic Review, Fall 1994, 46.

<sup>17</sup>Griffith, "Air Pressure: Strategy for the New World Order?", Airpower Journal, Summer 1994, 25.

terrorist activity against American targets.”<sup>18</sup> U.S. leaders were able to very quickly assess the level of damage which American air power inflicted within Libya and, based on this assessment and the “immediate drop in the level of terrorist attacks carried out against Americans,”<sup>19</sup> rapidly proclaimed the operation a success. Within the next five months, however, Americans were again targets for terrorist activity. The most compelling evidence that the operation had failed to alter Qadhafi’s long-term behavior occurred in December 1989, when Libyan intelligence agents allegedly planned and executed the bombing of Pan Am Flight 103 over Lockerbie, Scotland. Given this evidence, one must ask whether the use of air power alone actually achieved any strategic objectives.

The same problem arises with respect to measurement when using air power to deny airspace use to an adversary. The effectiveness of no-fly zones established for Provide Comfort and Deny Flight, for example, can be measured operationally to a certain extent, but their effectiveness in support of the strategic objectives isn’t so easily gauged.

**7. Loss intolerance.** Another legacy of the Gulf War which spills over into other military operations is the American public’s perceived intolerance for casualties. This legacy is further exacerbated by our shrinking force structure. As a consequence, losses incurred during a military operation can quickly turn an operational success into a perceived strategic failure. Operational commanders are indeed influenced by this mindset, as evidenced during the Gulf War. F-16 losses over Baghdad allegedly forced a cessation of daylight bombing raids over the city, and A-10 losses over Republican Guard positions restricted A-10

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<sup>18</sup>David W. Parsons, “Toward the Proper Application of Air Power in Low-Intensity Conflict,” Unpublished Research Paper, Naval Postgraduate School, Monterey, CA: 1993, 52.

<sup>19</sup>ibid., 52.

operations geographically. In each case, the losses numbered two aircraft each, a number which previously would have not been considered excessive.<sup>20</sup> Potential losses must therefore be considered during the operational design in order to be addressed publicly when and if they occur.

## **USING THE AIR POWER INSTRUMENT EFFECTIVELY**

The preceding limitations on the use of air power as a coercive instrument are not meant to dissuade operational commanders from considering air power as response to contingency situations. They're simply intended to show the limitations and considerations which must be taken into account when formulating operational recommendations. In addition to consideration of these limitations, certain guidelines, if followed, will help to enhance the chances of operational success.

**1. Keep the political objective up front.** An important theme throughout this paper is the blurred dividing line between strategy and operations when using air power as a coercive instrument. Given the sensitive nature inherent in force projection in an environment short of war, this blurring is probably inevitable; however, the operational commander can not afford to minimize the impact of this theme. Rather, the operational commander must keep political considerations in mind, since they will permeate every aspect of the planned operation. For example, during Operation El Dorado Canyon, the raid on Libya, "political considerations strongly influenced target selection, forced flight routes to be altered...and even dictated the weapons employed and the method of employment."<sup>21</sup>

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<sup>20</sup>Cohen, "The Meaning and Future of Air Power", *Orbis*, Spring 1995, 193.

<sup>21</sup>Bradley Butler, Planning Considerations for the Combat Employment of Air Power in Peacetime Contingency Operations (Langley AFB, VA: 1988), 4.

In order to enhance the overall effectiveness of a given air power operation, the political objective which the operation supports must be kept foremost in one's mind. This isn't always easy, as political objectives for this type of operation may be fuzzy, but it's imperative that the commander remain aware of and make operational decisions based on the underlying sociopolitical nature of the conflict. As Capt David Parsons points out, "[a]ny application of military power in LIC that ignores the underlying sociopolitical nature of the conflict is, in the long run, a waste of time, lives, and resources."<sup>22</sup>

On the other hand, a commander who incorporates political awareness into his operational thinking can gain a great deal of operational latitude. The armed forces enjoyed a great deal of latitude during the Gulf War, and one significant reason for this was the sensitivity of the American officer corps "to the requirements and restrictions imposed by political concerns."<sup>23</sup> As evidence, General Schwarzkopf directed aggressive efforts to search out and destroy mobile Scud launchers used against Israel, even though the launchers were at best a "militarily insignificant diversion."<sup>24</sup>

**2. Balance effectiveness and efficiency.** While the use of air power for coercion normally involves a search for points of leverage, there are times during which "one bomb for one target" might not be appropriate. If, for example, an air defense coordination center is located in the basement of a hospital, it's probably not politically feasible as a target.

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<sup>22</sup>David Parsons, "British Air Control: A Model for the Application of Air Power in Low-Intensity Conflict?", Airpower Journal, Summer 1994, 38.

<sup>23</sup>Cohen, "The Meaning and Future of Air Power", 198.

<sup>24</sup>Cohen, "The Meaning and Future of Air Power", 198.

Instead, the air defense radar sites might have to be individually targeted, leading to an increase in required sorties. The key point is that target sets usually involve potential “workarounds” which accomplish the ultimate objectives, although without the same level of efficiency. If alternative target sets aren’t available, the operational commander has three choices: Seek authorization to strike the militarily appropriate targets, consider other courses of action using other military instruments, or recommend that other, non-military actions (e.g. sanctions, embargoes, etc.) be considered.

**3. Force projection versus force application.** Two key tenets of air power are its flexibility and versatility.<sup>25</sup> These tenets allow a wide range of operational “tools” with which to accomplish objectives. During the Philippine coup attempt in 1989, Corazon Aquino’s government requested U.S. assistance in dealing with rebel planes involved in bombing and strafing. The range of options available included bombing the planes on the tarmac as well as other targets on the airport complex. General Powell, aware of the political ramifications of any bombing operations, decided on a graduated response aimed at intimidation of the rebel pilots--in short, to “scare hell out of them.”<sup>26</sup> F-4s were directed to buzz rebel pilots on the ground, shoot in front of any that attempted to take off and, if any got airborne, shoot them down. Simply having U.S. fighters overhead effected the necessary intimidation, however, and the operational objective was achieved without having to fire a shot.<sup>27</sup> Another example of the range of power projection available is the establishment of

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<sup>25</sup> AFM 1-1, 115.

<sup>26</sup> Colin Powell, My American Journey (New York: Random House 1995), 443.

<sup>27</sup> Ibid., 445.

no-fly zones over northern Iraq and over Bosnia. These no-fly zones depend on our perceived willingness to use force but again allow us to achieve our operational objectives with minimal violence.

**4. Look for operational as well as strategic utility.** When considering the range of operations available for the coercive use of air power, commanders and planners should look for operational utility as a corollary to the overall political aims. For example, operational protection remains an essential ingredient of any military operation and would drive at least some air defense suppression sorties. In addition, military targets which degrade a potential opponent's military effectiveness would have downstream benefits in the event of conflict escalation. Finally, the existence of weapons of mass destruction would certainly have an impact on target selection, since the removal of these weapons might be necessary to preclude any effective counterstrike.

This search for operational utility requires that common sense be applied to target selection. The strategic objective, for example, may simply be to project force against an opponent. The actual targets chosen might be up to the operational commander and, if so, should be targets which make sense militarily. In 1983, as a tragic example, the U.S. Navy conducted retaliatory airstrikes against targets in Lebanon. Military authorities had discretion as to the targets to be struck. Unfortunately, according to John Lehman, former secretary of the Navy, European Command "prepared...a lot of valueless target packages."<sup>28</sup> for the strike. While the mission was plagued by a series of problems as well--including questionable strike times, inadequate time for preparation, and ineffective tactics--the fact remains that two

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<sup>28</sup> John Lehman, Command of the Seas (New York: Macmillan 1988), 328.



airplanes and one airman were lost in an operation against "piddling, inconsequential targets."<sup>29</sup>

## CONCLUSION

U.S. air power constitutes a significant option for operational commanders when considering military responses for punitive or coercive purposes. Air power's flexibility, the advent of precision-guided munitions, and the relative lack of commitment inherent in its use, all combine to create an attractive tool for political leaders. Air power is not however a panacea and is saddled with certain significant limitations. Lesser-developed nations, with their lack of industrial infrastructure, lack the sort of targets which would normally provide leverage (e.g. power plants, oil refineries, communication centers.) Even when such targets exist, the political environment within which the operation will occur can place unmanageable constraints on the operational commander's freedom of action. The ancillary effects which result from the destruction of certain targets can create political complications, especially when the impact of an operation falls disproportionately on the civilian population.

The coercive use of air power is also limited by the countermeasures taken by an opposing nation. These measures can be either passive, taking advantage of the previously mentioned limitations; or active, as the opponent uses cheap, readily available technology to deny freedom of action. Compounding the risk from these countermeasures is the United States' own aversion to combat losses. The current environment doesn't tolerate casualties well. Finally, even if all other limitations are overcome, problems still arise as to the proper measures of effectiveness. While battle-damage assessments and short-term behavioral

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<sup>29</sup>ibid., 329.

changes might indicate operational success, long-term actions might very well indicate otherwise.

Limitations aside, air power might still be the instrument of choice for a coercive or punitive operation. In order to maximize the chances of operational success, operational commanders should keep the political objective in mind at all times and select a course of action which best fulfills that objective as effectively and efficiently as possible. Finally, the chosen operation (and target list) must make sense operationally as well as strategically. Used properly, air power can be a very powerful instrument; if used improperly, the political consequences can be fatal.

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